

WHAT IS CLAIMED IS:

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1. A process for the production of propylene from an olefin-rich feedstock containing at least one olefin of C₄ or greater, the process comprising contacting the olefinic feedstock with a catalyst of the MFI-type having a silicon/aluminum atomic ratio of at least about 180 to produce an effluent containing propylene, the propylene yield on an olefin basis being from 30 to 50% based on the olefinic content of the feedstock.
 2. A process according to claim 1, wherein the feedstock comprises a light cracked naphtha.
 3. A process according to claim 1, wherein the feedstock is selected from the group consisting of a C₄ cut from a fluidised-bed catalytic cracking unit in a refinery, a C₄ cut from a unit in a refinery for producing methyl tert-butyl ether, and a C₄ cut from a steam-cracking unit.
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4. A process according to claim 1, wherein the feedstock is selected from the group consisting of a C₅ cut from a steam cracker and light cracked naphtha.
 5. A process according claim 1, wherein at least 95wt% of any C₃ compounds in the effluent are present as propylene.
 6. A process according to claim 1, wherein the feedstock contacts the catalyst at an inlet temperature of from 500 to 600°C.
 7. A process according to claim 6, wherein the inlet temperature is from 540 to 580°C.
 8. A process according to claim 1, wherein the feedstock contacts the catalyst at an olefin partial pressure of from 0.1 to 2 bar.

9. A process according to claim 1, wherein the feedstock is passed over the catalyst at an LHSV of from 10 to 30h⁻¹.

10. A process according to claim 1, wherein the silicon/aluminum atomic ratio is from 180 to 1000.

11. A process according to claim 1, wherein the catalyst has been pretreated by heating the catalyst in steam and de-aluminating the catalyst by treating the catalyst with a complexing agent for aluminum, the pretreatment increasing the silicon/aluminum atomic ratio of the catalyst to a value at least about 180.

12. A process according to claim 1, wherein the catalyst of the MFI-type is of the silicalite type.

13. A process according to claim 1, wherein the catalyst of the MFI-type is of the ZSM-5 type.

14. A process according to claim 1, wherein the catalyst is of the ZSM-5 type and has been prepared by crystallisation using an organic template and has been unsubjected to any subsequent process selected from the group consisting of steaming and dealumination, the catalyst having a silicon/aluminum atomic ratio of from 300 to 1000.

[illegible]

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